

## Title

The value of social support to encourage people with schizophrenia to engage in physical activity:  
An international insight from specialist mental health physiotherapists

## Abstract

### Background

Research is needed to understand how mental health physiotherapists use social support when promoting physical activity.

### Aims

The aim of this study was to establish which dimensions of social support are used within physiotherapy sessions for individuals with schizophrenia.

### Method

A cross sectional international survey design of specialist mental health physiotherapists was undertaken.

### Results.

Forty mental health physiotherapists provided in depth accounts of the four functional dimensions of social support (informational, tangible, esteem and emotional) and the one structural dimension (importance of group exercise). The results illustrate how these different dimensions of social support are used by physiotherapists to engage patients and identify the value of group work as a specific form of support. Specifically the importance of all types of support was reported and this helped to provide a detailed consideration to the skills that mental health physiotherapist have.

### Conclusion

Providing social support is a significant part of the rehabilitation professionals' role. The current results advance the current understanding of how social support is provided to individuals with schizophrenia in rehabilitation settings.

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Keywords: Schizophrenia, Physical Activity, Physiotherapy, Survey

## **Background**

The recognition and importance of physical activity to the physical (Vancampfort, Probst, Knapen, Carraro, & De Hert, 2012) and psychological (Carpiniello, Primavera, Pilu, Vaccargiu, & Pinna, 2013) health of individuals with schizophrenia is well established. However, many people with schizophrenia remain inactive (Soundy et al., 2013) and researchers and clinicians are challenged with how to help individuals initiate physical activity and maintain it. Previous research has identified that one significant and contributing factor to inactivity is the problem of social isolation (Vancampfort et al., 2012). Being or feeling isolated influences an individual's everyday physical activity (Roberts & Bailey, 2011). Further to this, social isolation and a lack of desired relationships are reported by around a half of individuals with schizophrenia (Perese & Wolf, 2005). Importantly, nested within or alongside the results of many studies (Carless & Douglass, 2008; Centorrino et al., 2006; Deci & Ryan, 2000; Dodd, Duffy, Stewart, Impey, & Taylor, 2011) that consider changing physical activity behaviour is the benefit of social interaction on adherence, enjoyment and motivation (Vancampfort et al., 2013).

For the purposes of this article we define social support to be represented by Cutrona & Russell (1990) which includes five dimensions of social support including four functional forms (tangible support, esteem support, informational support and emotional support) as well as one structural form of support which considers the value of being part of a group or peer support. This definition has been used previous for the purposes of rehabilitation and schizophrenia (Soundy, Stubbs, Probst, Hemmings, & Vancampfort, 2014). Social support is considered an essential concept that is associated with a positive physical activity experience for individuals with schizophrenia (Soundy,

Kingstone & Coffee, 2012). Further to this, individuals with schizophrenia likely benefit greatly from positive therapeutic relationships that develop alongside the physical activity that is undertaken and such relationships help increase an individual's confidence for further participation (Crone & Guy, 2008). The cohesion that is developed with others can encourage interest and aid ongoing commitment to physical activity (Fogarty & Happell, 2005). If patients with schizophrenia are going to be able to successfully initiate and maintain physical activity, a greater understanding of how to use the different dimensions of social support is necessary. However, current research has not been able to detail the utilisation of different types of support by rehabilitation professionals such as physiotherapists. This is particularly important from the perspective of staff as this as an area which is underreported (Roberts & Bailey, 2013). Recent research has been able to detail the importance and value of specialist health care providers such as mental health physiotherapist for supporting behaviour change for individuals with schizophrenia (Stubbs et al., 2014). However this recent research has not considered the detail of the different dimensions of social support (Cutrona & Russell, 1990). Due to the importance of social support and the expanding role of the specialist mental health physiotherapists, research is required to understand the value and role of social support by physiotherapists to help engage people with schizophrenia in physical activity.

### *Aims*

The aim of the current research is to consider the role, value and use of social support as a part of promoting a healthy lifestyle and physical activity for individuals with schizophrenia.

## **Methods**

### *Design and participants*

A secure online invite was sent out to all members of the International Organization of Physical Therapists in Mental Health (IOPTMH n≈480) to take part in a qualitative survey. Physiotherapists were eligible if they had clinical experience (>1 year) of working with people with schizophrenia

(exact eligible n is unknown). Ethical approval was gained from the primary author's institution (REF: ERN\_13-0151).

### *The questionnaire*

The questions for this cross-sectional survey were developed by experts (all authors) in physical activity prescription in schizophrenia and with reference to the literature. The survey considered demographic information (gender, job role, qualifications, nationality, age, experience and training in mental health, current mental health setting where work is undertaken) and 5 open ended qualitative questions focused on the five dimensions of social support (please email the corresponding author for a copy of the survey). A small pilot study with 5 mental health physiotherapists was undertaken to assess face validity and ease of use. The survey was conducted in English.

### *Procedure*

The survey was emailed out in October 2013, followed by two subsequent reminder emails sent to maximise participation. The emails contained a link to a secure online survey tool (Qualtrics available at <http://www.qualtrics.com/>). Participants were informed about the purposes of the study and were told that filling in a questionnaire represented informed consent.

### *Analysis*

Descriptive statistics, including frequencies were used for demographic data. For the qualitative analysis, verbatim quotes from participants were entered into excel and identified by their number (PXX – ranging from 1-119 based on a quantitative data set number allocation), gender (M/F), age (XX), region (XX) and years' clinical experience (XX). An example of the participant identification system would be P26F 52 EU 25. A data led categorical content analysis approach was used (Bazeley, 2013) in which the primary author (AS) immersed himself in the data and included concept driven

analysis; this included the five dimensions of social support. Another author (PF) critiqued the analysis for structure and content of themes. Supplementary tables are available from the primary author to identify the specific responses from individuals.

## **Results**

### *Participant Characteristics*

Forty (10♂ and 30♀) specialist mental health physiotherapists (41.5±12.9 years) responded to the open ended questions and were subsequently included in the data driven analysis. Participants had an average of 10.4±7.8 year's clinical experience. Twenty four participants had a BSc level degree, 14 had undertaken some form of master's degree and 2 had a PhD. The respondents were primarily clinicians (n=32) although others were researchers (n=2), clinical educators (qualified physiotherapists who support students within a clinical placement) (n=2) and 6 described their current role as a combination of these categories. Twenty three individuals worked in inpatient settings, 10 individuals worked in the community, 4 worked within outpatient settings and 3 described their role as a combination of the above.

### *Qualitative responses to the different dimensions of support utilised and to the group exercise question*

The qualitative data analysis was split into the four dimensions (informational, tangible, esteem and emotional) of support and the use and value of group physical activity and exercise for physiotherapists. The number of responses to each question is presented in brackets. Responses that were identified <10% are included in the supplementary tables but not in the main text.

### *Informational Support (n = 30 responses)*

Three sub-themes were identified. First, the delivery methods were identified in general. The majority (53.3%, 16/30) of responses identified using written forms and less identified using verbal

forms of delivery (13.3%, 4/30). However, the implication from the following sub-themes is that both forms are used consistently. The second sub-theme considered the content of social support. Within this factor most physiotherapists (60.0%, 18/30) identified the importance of educating about the bio-psychosocial benefits of physical activity and exercise to their patients. Around a third of physiotherapists identified the importance of educating patients about exercise prescription that was undertaken (30.0%, 9/30). Following on from this, a similar number (26.7%, 8/30) identified the need for a one-to-one support approach with patients. This was identified as 'buddying' by some of the physiotherapists. In order to assist with exercise promotion, physiotherapists (26.7%, 8/30) would identify the times and places of physical activity classes.

Physiotherapists identified the importance of using different environments for patients (20.0%, 6/30). Slightly fewer physiotherapists identified the importance of considering the positive (20.0%, 6/30) and negative (13.3%, 4/30) symptoms of schizophrenia as well as the consequences of schizophrenia to the patients' health and well-being (10.0%, 3/30). The final sub-theme considered techniques which supported the delivery of exercise. Primarily physiotherapists identified a need to understand the patient's needs and provide choice for the patient (36%, 11/30). Second to this physiotherapists identified the importance of the style in which information was delivered. Examples of this included identifying how they engage with patients in order to achieve the best interaction or using different forms of communication like diagrams and drawings. Finally, physiotherapists also highlighted the importance of the multi-disciplinary team (specific reference was made to nurses within inpatients settings, occupational therapists, and community support workers or teams) in helping the patients become more active (20.0%, 6/20).

#### *Tangible Support (n = 33 responses)*

Four sub-themes were identified within this type of support. First, physiotherapists considered the need to prepare a patient to implement physical activity. This primarily required physiotherapists to provide periods of exercise under supervised conditions (54.5%, 18/33). These included using staff-

run groups as well as community led groups. This support was often limited to only a few sessions and had a purpose of ensuring adherence and integration into a new environment. Related to this some physiotherapists identified the need for understanding the transition about where the individuals are going, what the environment is like and who will be there (12.1%, 4/33). Second, physiotherapists identified incentives that were used to promote physical activity attendance and adherence. The primary incentive included providing support with costs for patients (45.5%, 15/33). This included tokens and rewards such as free tickets to a fitness facility (that has been specially designated for support and discount purposes) or hospital facilities. Related to this a number of responses suggested support with transport costs was also provided (21.2%, 7/33). Finally, and importantly, some physiotherapists (21.2%, 7/33) emphasised the need develop connections with local sports centres to offer facilities where people with schizophrenia can participate in physical activity. The final theme was identified that some physiotherapists (9.1%, 3/33) did not value this type of support. The following reasons were identified: that a reward should not be used to encourage autonomous physical activity behaviour, that some patients are not interested and that the very short duration of stay meant that using this type of support was not possible.

#### *Esteem Support (n=38)*

Two sub-themes were identified within this dimension of social support. First, the majority of physiotherapist would identify specific strategies to provide esteem for patients. This required five strategies: (1) Physiotherapist suggested they provide positive reinforcement (44.7%, 17/38) by identifying changes achieved (e.g., to weight, fitness level), behaviour monitoring of physical activities and positive self-statements, providing support and encouragement of each positive change or expression achieved. (2) There was a general approach to encouraging (44.7%, 17/38) patients for any opportunity to be more physically active. This included using their political (e.g., legislation, inpatient hospital procedures), social and physical environments if possible. (3) Several physiotherapists stated the need to encourage and support even relatively small achievements that

will build up an individual's confidence (36.8%, 14/38). For example, one physiotherapist stated: *"Praise given for attending and then for any activity, including staying for whole group"* ( P5F 55 EU 20). (4) The importance of providing feedback (31.6%, 12/38) post exercise using verbal and written communication. (5) Over a third (36.8%, 14/38) of physiotherapists suggested they utilised psychological theories in order to provide esteem support. This included motivational interviewing and self-efficacy as well as models that relate to behaviour change and self-determination.

#### *Emotional Support (n=38)*

Physiotherapists identified two themes. In a similar way to esteem support, the first was regarding strategies that aided the patients. The most explicit and dominant theme was the need for physiotherapists to spend time and listen to the patient in order for them to express themselves (60.5%, 23/38). The value and importance of listening could not be overstated and was highly valued by physiotherapists. Related to this, a number of physiotherapists (42.1%, 16/38) suggested specific psychological theories/techniques including active listening and counselling. Finally, some individuals focused on the conditions needed which facilitated patients expressions (10.5%, 4/38). It is evident that, in combination, these different subthemes would likely create a positive therapeutic relationship.

#### *Social Integration – How individuals feel about being part of a Group (n=40)*

Two sub-themes were identified when the physiotherapist considered the value of group exercise. First, physiotherapists identified two aspects of group dynamics that were important to consider. First was the need for individuals to feel they belong and relate to a group (35.0%, 14/40). For example, several physiotherapists identified that feeling accepted and comfortable in a group means that (1) positive sharing experiences could take place, (2) that unity and identity could be positively influenced and (3) that interactions could be generated which were not related to the patient's mental illness. In contrast to this, some individuals (12.5%, 5/40) highlighted challenges that could be associated with a group. For instance, it was identified that group experiences can go wrong and



be very damaging for participants. Some individuals may feel ostracised by the group, not all patients may like or be suited to group activity and poor previously established relationships could impact on group dynamics leading to poor outcomes. Second, the role and value of peer support was highlighted and supported by the majority of physiotherapists (60.0%, 24/40). Benefits included the ability to share with others provided a great source of support (30.0%, 12/40) as they could share all kinds of experience. Further, physiotherapists identified that positive experiences in a safe environment, builds confidence for the patient (30.0%, 12/40), and aids the transition to community based physical activity. In addition to this, it was identified that peer support could aid motivation and adherence (12.5%, 5/40) as well as increase an individual network of support (10.0%, 4/40).

## **Discussion**

The current article was able to consider the use and value of social support by an international group of specialist mental health physiotherapists working with patients who have schizophrenia. This insight provides specific support for the four functional dimensions of social support and the one structural dimension of social support. The current results suggested that the provision of social support required a great deal of time and that mental health physiotherapists' needed to be well skilled in specific strategies of communication. It is clear that physiotherapists provide intensive individualised support, often utilising psychological theories or behavioural change techniques or models in order to develop a therapeutic relationship and promote positive behaviour change.

Previous research (Soundy et al., 2014) has lacked specific details and context about the role, use and importance of informational support and esteem support. The current research has been useful in considering this. Various forms of informational support were utilised including written and verbal techniques by a large number of physiotherapists. It is clear that a key role for physiotherapists is educating patients on the bio-psychosocial benefits of physical activity. This is important because of the weight of evidence that supports these benefits e.g., (Vancampfort et al.,

2012a; 2012b). Notably, around a third of physiotherapists identified that they provided exercise prescription as a form of informational support. Indeed, it may be that mental health physiotherapists need to consider the provision of exercise prescription as central to their role (Stubbs et al., 2014). Examples of how to construct such support can be found in previous literature by Beebe and Colleagues (e.g., Beebe & Smith, 2010).

Esteem support has been acknowledged by previous research (Soundy et al., 2014) to be important for physiotherapists. According to the perception of the physiotherapists included in this study, esteem support should focus on providing individualised encouragement for patients with any progress shown as well as reinforcing positive behaviour (e.g., just attending and watching a physical activity session) and providing feedback on their progress with activity. Together this supports the idea of promoting the basic needs of competence, autonomy and belonging for individuals (Deci & Ryan, 2000). Importantly over a third of physiotherapists identified behaviour change techniques such as motivational interviewing (Rollnick, Butler, Kinnersley, Gregory, & Mash, 2010) or specific behaviour change theories such self-determination theory (Deci & Ryan, 2000). The need for positive strategies such as these was deemed important in order to promote the confidence, self-esteem and self-efficacy of patients. The value of the therapeutic relationship for mental health physiotherapists has been previously identified (Soundy et al., 2014). The current research was able to consider what this meant for mental health physiotherapists, including detailing the importance of taking the time to listen to patients and value the interaction. Furthermore, the use theories which related to counselling and active listening were highlighted as having important value for physiotherapists with a likely aim of securing a positive therapeutic relationship.

Tangible support was provided with a particular focus on being individually supported for periods of time, this was often limited to a few sessions when integrating individuals into a different environment. Physiotherapists used tokens, rewards and access to reduced cost entry to local leisure centres as well as assistance with travel. However, a small number of physiotherapists were not convinced by this form of support. Further, this type of support does not necessarily overcome

difficulties associated with activity participation such as emotional functioning, social functioning, or pain (Świtaj, Anczewska, Chrostek, Sabariego, Cieza et al., 2012).

Lastly, group exercise was generally seen as a positive form of structural support, because of the value of allowing patients to feel that they belong and can relate to others in a positive fashion. This observation supports previous literature (Soundy et al., 2012), that suggests this would provide access to a more positive identity and to coping experiences as well as to the benefit of feeling supported by others which in turn is likely to enable a patient's confidence to be positively influenced. However, some physiotherapists highlighted that it was important to guard against the possibility of negative interactions and realise that some patients do not enjoy the group setting.

#### *Limitations*

Several limitations need to be acknowledged. The results may not be representative or generalizable, however, the more dominant themes require consideration from mental health physiotherapists. The response rate of the survey is lower than previous survey's (e.g., Stubbs et al., 2014) as respondents were likely fatigued and demotivated by repetitive requests. Complete reporting of all themes was not given and this was a major weakness. The results may be limited by the focus on social support.

#### *Summary*

The current article has provided considerations to the skills used by mental health physiotherapists in order to promote physical activity to individuals with schizophrenia. This article has helped to provide a definition for their role within mental health settings in addition to detailing the wider use and value of social support in engaging people with schizophrenia in physical activity.

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